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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/590,417
Filing Date: June 08, 2000
Appellant(s): TILFORD, ARTHUR R.

Todd N. Snyder
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/29/08 appealing from the Office action mailed 05/29/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,169,879	PERLMAN	1-2001
5,675,390	SCHINDLER ET AL.	10-1997
6,437,836	HUANG ET AL.	8-2002
6,530,085	PERLMAN	3-2003

"PocketTV Brings Video to Palm-size PC", [online] [retrieved on 2003-04-16]

Retrieved from the Internet Archive (WayBack Machine) using Internet <URL:

<http://web.archive.org/web/20000816034339/www.palmsizepc.com/mar2000-14-1.html>>

Responsive to arguments raised/addressed in previous actions which were also raised in the Appeal Brief regarding the particular usage of improper hindsight as well as other conclusions regarding the teaching of references of record, the

examiner answer further relies upon additional evidence already of record to further support the examiner's position.

5,831,664	WHARTON ET AL.	11-1998
6,754,904	COOPER ET AL.	6-2004
5,761,302	PARK	6-1998
6,476,825	CROY ET AL.	11-2002
EP 0 710 017	MINETT	5-1996

"HP Jornada 430/430se Palm-size PC: User's Guide", Hewlett Packard, 1999, pp. 7-9 and 43-54.

"PocketTV - MPEG movie player for Pocket PC and WinCE" [online], 17 May 2000
MPEG TV, LLC [retrieved on 2004-03-26]. Retrieved from the Internet <URL:
<http://web.archive.org/web/200006210123803/www.mpegTV.com/wince/pocketTV/index.html>>

"Download PocketTV (beta) for WinCE" [online], 3 November 1999 MPEG TV, LLC
[retrieved on 2004-03-26]. Retrieved from the Internet <URL:
<http://web.archive.org/web/19991127093158/www.mpegTV.com/wince/pocketTV/index.html>>

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 35-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (US Pat No. 6,169,879), in view of the PocketTV™ article, and in further view of Huang et al. (US Pat No. 6,437,836).

In consideration of claim 35, the Perlman et al. reference discloses a method, system, and article of manufacture for facilitating communications between a WebTV “set top box” [40] and a plurality of “electronic devices” defined as “any number or type of various consumer electronic devices that provide audio output, video output, or information services” (Col 6, Lines 45-60). The system implicitly comprises “two or more set top boxes (STBs)” [40] or WebTV boxes (Col 8, Lines 12-15) associated with a given user’s home entertainment system for “controlling a display of audio/visual information” [110]. A WebTV®, as defined in the Microsoft Computer Dictionary 5th Edition, is a “system that provides consumers with the ability to access the Web as well as send and receive e-mail on a television by means of a set-top box equipped with a modem”.

The reference discloses that the “set top box” [40] is operable to “receive broadcast audio/visual information” (Col 7, Line 66 – Col 8, Line 4) and “receive” / “transmit audio/video information” from/to any of the connected sources such as a VCR [130] whereupon it is “transformed . . . to a form suitable for presentation on an output device” for “display on the output device” [110] (Col 9, Lines 23-30, 46-65). The reference, however, does not explicitly disclose nor preclude that the aforementioned interconnected “electronic devices” would not further include a “handheld computing device” such as one that provides audio output, video output, or information services.

The "PocketTV Brings Video to Palm-size PC" article discloses a "handheld computing device" such as a PDA (ex. HP Jornada 430se) that further provides audio and video output in a manner such that it "becomes a miniature VCR" and further inherently supports the ability to "transmit" and "receive" video files to a computer, as further evidenced by the "HP Jornada 430/430se Palm-size PC User's Guide" of record. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a "handheld computing device" as disclosed in the PocketTV™ article in conjunction with the "set top box" [40] interconnection teachings of Perlman for the purposes of enabling the recording/storage of "audio/visual information" on a portable device that may advantageously allow for the storage of an entire movie in your pocket (PocketTV™ article) in a portable manner. Furthermore, such a combination would implicitly provide a means for presenting such information using a larger display screen [110] analogous to the Perlman VCR arrangement for the commonly known advantage of providing the "handheld computing device" or PDA user with a more easily viewable image when the PDA is interconnected to the "set top box" [40] based upon a higher screen size and resolution (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enabling easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image.

Taken in combination, the combined teachings disclose a "set top box" [40] that facilitates the distribution of audio/visual information to, from, and between a plurality of interconnected electronic devices including "handheld computing device" for display on the "output device" [110]. However, the reference does not explicitly disclose nor

preclude that the "handheld computing device" is further configured to facilitate remote control type functions. The Huang et al. reference discloses the particular usage of a "handheld computing device" or PDA that is operable to "receive a user command from a user" and "translate the user command into a command signal" so as to "control one or more of the STBs using the command signal" (Col 6, Lines 16-31; Col 7, Lines 43-58). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the "handheld computing device" of the combined teachings for the purpose of utilizing a PDA as a platform for a remote control that advantageously facilitates added flexibility and functionality (Huang et al.: Col 3, Line 51 – Col 4, Line 21).

Claims 47 and 48 are rejected as previous set forth in the rejection of claim 35. The aforementioned combined references do not explicitly disclose the particularly claimed scenario wherein a "first of one or more hand held computing devices" is operable to interact with a STB (Claim 47) such that "the first hand held computing device and second hand held computing device are different hand held computing devices". In response to the examiner's previous objection pertaining to the drawings failing to illustrate such a scenario utilizing multiple "handheld computing devices" in conjunction with a single "set top box", the applicant states that such a scenario is a "conventional feature" and as such need not be shown in the Figures (Response to Final Rejection, 01 December 2003, Page 7). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention that the aforementioned combined teachings of Perlman would be operable to utilize both a "first" and a "second

handheld computing device" that are different for the purposes of enabling a viewer to transport and share media with another user with a similar configuration.

Alternatively, it is well known in the art that viewers desire to share recorded media for a number of reasons. The combined Perlman and PocketTV™ articles suggest the use of a portable "handheld computing device" in which a viewer may take recorded media along with them. One of ordinary skill in the art would recognize that multiple home entertainment systems of the combined references may exist and meet the claimed limitations wherein the "first" and "second handheld computing devices" are "different". Feasibly a viewer with a "first hand held computing device" may "receive audio/visual information" that is "transmitted" to a "first handheld computing device" and "stored". The viewer's friend may own a "second handheld computing device" that "receives" and "stores" a different program. Over afternoon tea, the second viewer may talk about the program that he/she watched last night. Presuming that the first viewer has not viewed the program, the second viewer having ordinary skill in the art and being a polite conversationalist may offer to share the contents of the "second handheld computing device". One having ordinary skill in the art would subsequently recognize that it would be advantageous to plug the "second handheld computing device" into the first users home entertainment system such that it "receives" and "provides the audio/visual information from the second hand held computing device" to an "output device" [110] such as a television set for the purpose of advantageously providing the video display on a larger screen that is easier to view so as to share the program with the second user.

In consideration of claim 57, as aforementioned, the combined teachings disclose a "handheld computing device" such as a PDA that is implicitly operable to "control two or more set top boxes" of similar configuration. As aforementioned, the "handheld computing device", in light of the combined references, is operable to "receive audio/visual information from a first STB", "store the received audio/visual information" and subsequently transmit the "stored audio/visual information to a second STB for display on the output device".

In consideration of claims 36, 37, 58, and 59, it is known in the art that viewers share recorded media. The combined disclose the use of a portable "handheld computing device" in which a viewer may take recorded media along with them. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to recognize various usage scenarios for the purpose of sharing and distributing media between users with a similar configuration of home entertainment systems. For example, one of ordinary skill in the art would recognize that given multiple home entertainment systems that a user might record information on their "handheld computer device" for storage and playback on the "same" STB for the purpose of presenting such information using a larger display screen that advantageously provides a higher screen image resolution than that associated with the PDA (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enables easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image. Alternatively, the use of the "same" STB provides the user with the ability to record and advantageously watch the program at a

later time. Similarly, in conjunction with the sharing of media, a user of a "handheld computer device" may subsequently share or distribute the media to a "different" STB associated with a friend for the purposes of advantageously enabling the sharing (analogous to sharing a traditional VCR tape) and viewing of the recorded media on a larger display screen associated with a different location.

In consideration of claims 38, 49, and 60, it is notoriously well known in the art to for a VCR to "transmit the audio/visual information . . . in response to the depressing of a signal button" such as the play button. As aforementioned, the Perlman reference discloses that the VCR [130] is operable to "transmit the audio/visual information" to a "set top box" [40]. Accordingly, given that the suggestion by PocketTV™ article that the PocketTV™ is a "miniature VCR", it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a "user command" such as that associated with a play button similar to other VCRs in the art for the purpose of providing a means for "transmitting audio/visual information" to the "second STB" [40] for display on the "output device" [110] using an interface with which a user of a VCR is familiar.

In consideration of claims 39 and 61, it would have been obvious to one having ordinary skill in the art at the time of the invention to store the audio/visual information on the "handheld computing device in encrypted form" for the purpose of limiting the distribution and subsequent playback of the record media to individuals per the media terms of use.

In consideration of claims 40, 41, 50, 51, 62, and 66, the Perlman reference discloses that the embodiment is operable to support a means for electrically

connecting each of the consumer electronic devices to the central device in a hub and spoke configuration (Col 14, Lines 31-33) and may further reformat signals between various formats (Col 16, Lines 12-23). The Huang et al. reference discloses the particular usage of "wireless transmission" to communicate with the "one or more of the STBs" (Col 5, Lines 15-21). A PDA such as the HP Jordana 430/430se is operable to communicate via both "wireless" and "wired" means. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further utilize "wired" means in conjunction with "communications" with the "one or more STBs" associated with audio/video materials for the purpose of utilizing a distribution method that supports a higher data transfer rate needed to support streaming video.

In consideration of claims 42, 52, and 64, the Huang et al. embodiment is "configured to control a video cassette recorder" (Col 5, Lines 22-30). The Perlman reference, however, does not explicitly disclose nor preclude that the "set top box" [40] further comprises an "incorporated" video cassette recorder. Rather, the video cassette recorder [130] is illustrated as a separate unit. However, Perlman explicitly incorporates by reference the Perlman (US Pat No. 6,530,085) reference (Col 1, Lines 7-10). The Perlman ('085) reference discloses that the "set top box" [40] may comprise an "incorporated" videocassette recorder (Col 19, Lines 46-64). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention that the VCR [130] referenced in conjunction with the Perlman ('879) reference may be either external or internal to the "set top box" [40].

In consideration of claims 43, 53, and 65, the combined references do not explicitly disclose the particular technique for “filtering out desirable information from the broadcast audio/visual information for transmission and storage on the handheld computing device”. As referenced in the PocketTV article, a Palm sized device may comprise 64 MB of memory that is operable to store more than one hour of audio/visual information (Para. 2). Accordingly, it would have been obvious to one having ordinary skill in the art to “filter out desirable information from the broadcast audio/visual information” do so for the purpose of utilizing the limited storage capacity to store “desired” material as opposed to undesirable material.

In consideration of claims 44, 54, and 66, the combined references do not explicitly disclose that the “audio/visual information” is transmitted over a “constant period interval”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit information over a “constant periodic interval” since it was known in the art that data such as wireless streamed video is transmitted at a “constant periodic interval” of 100 Mbit/sec or higher per the PocketTV article. Furthermore, the IrDA compliant transceivers such as that associated with the HP Jornada 430/430se transmit information at a “constant period interval” from 9600 b/s with primary speed/cost steps of 115 kb/s and maximum speed up to 4 Mb/s.

In consideration of claims 45, 55, and 67, the “audio/visual information” is “transmitted from one of the STBs to the handheld computing device only when an amount of the audio/visual information exceeds a threshold” such that information is only transmitted when information is available. Alternatively, given that the embodiment

is operable to communicate via both "wireless" and "wired" means, it would have been obvious to one having ordinary skill in the art that information would be transmitted via the "wired" means if the data transfer rate exceeds 100 Mbit/sec since such a transfer rate is not supported in conjunction with wireless distribution as taught by the PocketTV article.

In consideration of claims 46, 56, and 68, as aforementioned audio/visual information may be "transmitted" from one of the "handheld computing devices" or electronic devices to the STB [40] (Perlman ('879): Col 9, Lines 46-54). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to "transmit" the "audio/visual information . . . from one of the STBs to the handheld computing device when requested by the handheld computing device" for the purpose of providing a means by which the user may control and specify the particular information to be stored on the "handheld computing device".

2. Claims 35-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schindler et al. (US Pat No. 5,675,390), in view of the PocketTV™ article, and in further view of Huang et al. (US Pat No. 6,437,836).

In consideration of claim 35, the Schindler et al. reference discloses a method, system, and article of manufacture for facilitating communications between a computer / "set top box" [118] and a plurality of "electronic devices" (Figure 1). In light of the applicant's specification, a "set top box" is disclosed as any device capable of receiving program information signals (IA: Page 10, Lines 23-25). The reference discloses that the "set top box" [118] is operable to "receive broadcast audio/visual information"

including MPEG-1 encoded signals and to "receive" / "transmit audio/video information" from/to a connected sources such as a VCR [172] whereupon it is "transformed . . . to a form suitable for presentation on an output device" for "display on the output device" [122] (Col 7, Line 44 – Col 8, Line 65). The reference, however, does not explicitly disclose the particular usage of a "handheld computing device" to be used in conjunction with the embodiment for the receiving and transmitting material to/from a computer. The PocketTV™ article, as interpreted by the applicant (Response to arguments, received 26 January 2004 - Page 9, Lines 7-10), discloses a device or PDA that is limited to receiving and transmitting material to/from a computer. As referenced in the article, such information comprises MPEG-1 encoded video. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a "handheld computing device" as disclosed in the PocketTV™ article in conjunction with the computer / "set top box" [118] of Schindler et al. which facilitates the storage and processing of MPEG-1 encoded video for the purposes of enabling the recording/storage of "audio/visual information" on a portable device that may advantageously allow for the storage of an entire movie in your pocket (PocketTV™ article) in a portable manner. Furthermore, such a combination would implicitly provide a means for presenting such information using a larger display screen [122] for the commonly known advantage of providing the PDA user with a more easily viewable image when the PDA is interconnected to the "set top box" [118] based upon a higher screen resolution (HP Jornada 430se provides a maximum of 16-bit video or 65,336

colors) and/or enabling easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image.

Taken in combination, the combined teachings disclose a computer / "set top box" [118] and "handheld computing device" or PDA that are operable to interchange information and display "audio/visual information" on the "output device" [122]. However, the reference does not explicitly disclose nor preclude that the "handheld computing device" is further configured to facilitate remote control type functions. The Huang et al. reference discloses the particular usage of a "handheld computing device" or PDA that is operable to "receive a user command from a user" and "translate the user command into a command signal" so as to "control one or more of the STBs using the command signal" (Col 6, Lines 16-31; Col 7, Lines 43-58). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the "handheld computing device" of the combined teachings for the purpose of utilizing a PDA as a platform for a remote control that advantageously facilitates added flexibility and functionality (Huang et al.: Col 3, Line 51 – Col 4, Line 21).

Claims 47 and 48 are rejected as previous set forth in the rejection of claim 35. With respect to the differences, the aforementioned combined references do not explicitly disclose the particularly claimed scenario wherein a "first of one or more hand held computing devices" is operable to interact with a STB (Claim 47) such that "the first hand held computing device and second hand held computing device are different handheld computing devices". In response to the examiner's previous objection pertaining to the drawings failing to illustrate such a scenario utilizing multiple "handheld

computing devices" in conjunction with a single "set top box", the applicant states that such a scenario is a "conventional feature" and as such need not be shown in the Figures (Response to Final Rejection, 01 December 2003, Page 7). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention that the aforementioned combined teachings would be operable to utilize both a "first" and a "second handheld computing device" that are different for the purposes of enabling a viewer to transport and share media with another user with a similar configuration.

Alternatively, it is well known in the art that viewers desire to share recorded media for a number of reasons. The combined references articles suggest the use of a portable "handheld computing device" in which a viewer may take recorded media along with them. One of ordinary skill in the art would recognize that multiple home entertainment systems of the combined references may exist and meet the claimed limitations wherein the "first" and "second handheld computing devices" are "different". Feasibly a viewer with a "first hand held computing device" may "receive audio/visual information" that is "transmitted" to a "first handheld computing device" and "stored". The viewer's friend may own a "second handheld computing device" that "receives" and "stores" a different program. Over afternoon tea, the second viewer may talk about the program that he/she watched last night. Presuming that the first viewer has not viewed the program, the second viewer having ordinary skill in the art and being a polite conversationalist may offer to share the contents of the "second handheld computing device". One having ordinary skill in the art would subsequently recognize that it would

be advantageous to plug the "second handheld computing device" into the first users home entertainment system such that it "receives" and "provides the audio/visual information from the second hand held computing device" to an "output device" [122] such as a television set for the purpose of advantageously providing the video display on a larger screen that is easier to view so as to share the program with the second user.

In consideration of claim 57, as aforementioned, the combined teachings disclose a "handled computing device" such as a PDA that is implicitly operable to "control two or more set top boxes" of similar configuration. As aforementioned, the "handheld computing device", in light of the combined references, is operable to "receive audio/visual information from a first STB", "store the received audio/visual information" and subsequently transmit the "stored audio/visual information to a second STB for display on the output device".

In consideration of claims 36, 37, 58, and 59, it is known in the art that viewers share recorded media. The combined disclose the use of a portable "handheld computing device" in which a viewer may take recorded media along with them. Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to recognize various usage scenarios for the purpose of sharing and distributing media between users with a similar configuration of home entertainment systems. For example, one of ordinary skill in the art would recognize that given multiple home entertainment systems that a user might record information on their "handheld computer device" for storage and playback on the "same" STB for the

purpose of presenting such information using a larger display screen that advantageously provides a higher screen image resolution than that associated with the PDA (HP Jornada 430se provides a maximum of 16-bit video or 65,336 colors) and/or enables easier viewing for additional/multiple user so as to share viewing the recorded content given the larger screen image. Alternatively, the use of the "same" STB provides the user with the ability to record and advantageously watch the program at a later time. Similarly, in conjunction with the sharing of media, a user of a "handheld computer device" may subsequently share or distribute the media to a "different" STB associated with a friend for the purposes of advantageously enabling the sharing (analogous to sharing a traditional VCR tape) and viewing of the recorded media on a larger display screen associated with a different location.

In consideration of claims 38, 49, and 60, it is notoriously well known in the art to for a VCR to "transmit the audio/visual information . . . in response to the depressing of a signal button" such as the play button. Accordingly, given that the suggestion by PocketTV™ article that the PocketTV™ is a "miniature VCR", it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a "user command" such as that associated with a play button similar to other VCRs in the art for the purpose of providing a means for "transmitting audio/visual information" to the "second STB" [118] for display on the "output device" [122] using an interface with which a user of a VCR is familiar.

In consideration of claims 39 and 61, it would have been obvious to one having ordinary skill in the art at the time of the invention to store the audio/visual information

on the "handheld computing device in encrypted form" for the purpose of limiting the distribution and subsequent playback of the record media to individuals per the media terms of use.

In consideration of claims 40, 41, 50, 51, 62, and 66, the Huang et al. reference discloses the particular usage of "wireless transmission" to communicate with the "one or more of the STBs" (Col 5, Lines 15-21). A PDA such as the HP Jordana 430/430se is operable to communicate via both "wireless" and "wired" means. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further utilize "wired" means in conjunction with "communications" with the "one or more STBs" associated with audio/video materials for the purpose of utilizing a distribution method that supports a higher data transfer rate needed to support streaming video.

In consideration of claims 42, 52, and 64, the Huang et al. embodiment is "configured to control a video cassette recorder" (Col 5, Lines 22-30). The Schindler et al. reference, further discloses that the computer / "set top box" [118] comprises an "incorporated" video cassette recorder [330] (Col 10, Lines 52-54).

In consideration of claims 43, 53, and 65, the combined references do not explicitly disclose the particular technique for "filtering out desirable information from the broadcast audio/visual information for transmission and storage on the handheld computing device". As referenced in the PocketTV article, a Palm sized device may comprise 64 MB of memory that is operable to store more than one hour of audio/visual information (Para. 2). Accordingly, it would have been obvious to one having ordinary

skill in the art to “filter out desirable information from the broadcast audio/visual information” do so for the purpose of utilizing the limited storage capacity to store “desired” material as opposed to undesirable material. It is unclear as to why one would be motivated to record program material for which the user has no interest.

In consideration of claims 44, 54, and 66, the combined references do not explicitly disclose that the “audio/visual information” is transmitted over a “constant period interval”. It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit information over a “constant periodic interval” since it was known in the art that data such as wireless streamed video is transmitted at a “constant periodic interval” of 100 Mbit/sec or higher per the PocketTV article. Furthermore, the IrDA compliant transceivers such as that associated with the HP Jornada 430/430se transmit information at a “constant period interval” from 9600 b/s with primary speed/cost steps of 115 kb/s and maximum speed up to 4 Mb/s.

In consideration of claims 45, 55, and 67, the “audio/visual information” is “transmitted from one of the STBs to the handheld computing device only when an amount of the audio/visual information exceeds a threshold” such that information is only transmitted when information is available. Alternatively, given that the embodiment is operable to communicate via both “wireless” and “wired” means, it would have been obvious to one having ordinary skill in the art that information would be transmitted via the “wired” means if the data transfer rate exceeds 100 Mbit/sec since such a transfer rate is not supported in conjunction with wireless distribution as taught by the PocketTV article.

In consideration of claims 46, 56, and 68, as aforementioned, it would have been obvious to one having ordinary skill in the art at the time the invention was made to “transmit” the “audio/visual information . . . from one of the STBs to the handheld computing device when requested by the handheld computing device” for the purpose of providing a means by which the user may control and specify the particular information to be stored on the “handheld computing device”.

(10) Response to Argument

Introduction

In response to appellant’s arguments the examiner respectfully disagrees that the rejection should be reversed. Only those arguments raised by the appellant pursuant to particular issues and particularly addressed claimed limitations on appeal have been considered and addressed by the examiner. Any further arguments regarding other requirements associated with establishing a prima facie case of obviousness that the appellant could have made are considered as having been conceded by the appellant for the basis of the decision of this appeal and are not being subsequently addressed by the examiner for the Board’s consideration.

As set forth in the background and the summary of the invention, appellants set forth that it is commonly known for a set-top box to be interconnected with a VCR or other recording device to enable the recording/playback of encrypted content derived from the VCR (IA: Page 2, Line 25 – Page 3, Line 12). Appellants further describe that prior art handheld computing devices are known in the art wherein software can be

installed on a PDA to provide enhanced functionality which includes recording functionality (IA: Page 3, Lines 28 – Page 5, Line 8). The Appeal Brief generally presents numerous arguments against the combination of references (many of which are wholly unsupported by the evidence of record¹), in an attempt to obfuscate what is a simple concept – namely that the invention is merely the replacement of traditional VCR functionality and its associated recording medium invention with a handheld computing device in order to achieve portability using a smaller recording device (IA: Page 3, Lines 16-21). In light of the art of record, the mere replacement of a traditional VCR recording device with a portable or handheld computing device is not considered to rise to the level of patentability over the prior art.

Further in KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. This is much the case with this invention. In addition, the examiner should point out that all elements of Perlman, the PocketTVTM article, and Huang are known. These well known methods, of using a handheld device, using a handheld device as a control remote, and a network comprising a plurality of STB could be combined to yield predictable results. In addition, all elements of Schindler, the PocketTVTM article, and Huang are known. These well known methods, of using a handheld device, using a

¹ The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). As previously noted in the Evidence Relied upon, the examiner has provided factual evidence of record in order to factually rebut appellant's unsubstantiated arguments against the combination of references.

handheld device as a control remote, and a handheld device to control a STB as well as a computer could be combined to yield the predictable hand held computing device with common VCR like functions.

Summary of the combination of Perlman, the PocketTV™ article, and Huang

Prior to specifically addressing appellant's arguments, it is noted that the examiner relied upon two separate grounds of rejection in view of appellant's arguments presented during the prosecution of the case. Subsequently, it is believed to be helpful to particularly summarize the prima facie case of obviousness established in the rejections of record. As shown in Figure 6, the Perlman reference illustrates the particular interconnection of a plurality of consumer electronic devices including those typically associated with recording (ex. VCR [130]) with a 'set-top box' or central electronics device [40]. The reference subsequently discloses a 'system' comprising 'two or more set top boxes (STBs)' (being either the same or different set-top boxes corresponding to different subscribers) that is operable to receive and/or distribute between itself [40], the recording device [130], and a display device [110] (ex. Col 9, Lines 46-65). A remote control is further provided to control the operation of the system responsive to user commands including recording/playback (ex. Col 12, Lines 37-50; Col 14, Lines 11-21). Accordingly, the Perlman reference generally teaches all of the claimed limitations of the independent claims absent the particular usage of a 'handheld

computing device' as both a remote controller and a recording type device similar to the illustrated VCR.

The PocketTV™ article discloses a 'hand held computing device' and explicitly equates the 'hand held computing device' with a VCR. The reference further teaches that this advantageously provides for portability recorded media. Subsequently, the examiner has concluded that one of ordinary skill in the art would have been motivated to either modify, replace, or supplement the illustrated VCR of Perlman and its associated functionality with a 'hand held computing device' as shown in the PocketTV™ article.

The Huang reference discloses a 'hand held computing device' and advantageously teaches its usage as a remote controller. Accordingly, it is the examiner's opinion that one skilled in the art would have further found it obvious to modify the 'hand held computing device' associated with the PocketTV™ to further serve as a remote controller as claimed.

In addition, the examiner should point out that all elements of Perlman, the PocketTV™ article, and Huang are known as disclosed in the previous three paragraphs. These well known methods, of using a handheld device, using a handheld device as a control remote, and a network comprising a plurality of STB could be combined to yield predictable results.

Summary of the combination of Schindler, the PocketTV™ article, and Huang

During prosecution, appellant's argued that the combination utilizing Schindler was flawed because the 'hand held computing device' referenced in the Pocket™ article was only usable with a personal computer as opposed to the 'set-top box' of Perlman. While the examiner did not and continues not to agree with that position, an alternative combination was presented which explicitly utilized a 'set-top box' (in light of the definition provided in the specification) that also serves as a personal computer. Similar to Perlman, the Schindler reference, as illustrated in Figure 1, discloses the particular interconnection of a plurality of consumer electronic devices including those typically associated with recording (ex. VCR [172]) with a 'set-top box' [118] that is operable to receive and/or distribute received content between itself, a recording device [173], and a display device [122]. A remote control [124] is further provided to control the operation of the system responsive to user commands including recording/playback. Accordingly, the Schindler reference generally teaches all of the claimed limitations absent the particular usage of a 'handheld computing device' as both a recording type device such as the illustrated VCR and a remote controller.

The PocketTV™ article discloses a 'hand held computing device' and explicitly equates the 'hand held computing device' with a VCR. The reference further teaches that this advantageously provides for portability of recorded media. Subsequently, the examiner has concluded both independently and in accordance with the appellant's interpretation of the PocketTV™ article that one of ordinary skill in the art would have been sufficiently motivated to use the PDA that 'becomes a VCR' described in the

Pocket™ article with the personal computer of Schindler, so as to either modify, replace, or supplement the illustrated VCR of Schindler.

The Huang reference discloses a 'hand held computing device' and advantageously teaches its usage as a remote controller. Accordingly, it is the examiner's opinion that one skilled in the art would have further found it obvious to modify the 'hand held computing device' associated with the PocketTV™ to further serve as a remote controller as claimed.

In addition, the examiner should point out that all elements of Schindler, the PocketTV™ article, and Huang are known as disclosed in the previous four paragraphs. These well known methods, of using a handheld device, using a handheld device as a control remote, and a handheld device to control a STB as well as a computer could be combined to yield the predictable hand held computing device with common VCR like functions.

Detailed Response to Arguments

A. Independent claims 35, 47, and 57 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

As illustrated in Figure 6, Perlman facilitates the interconnection of consumer electronic devices with a central electronics device [40]. Responsive to appellant's inconsistent arguments regarding the central electronics device not being a set-top box (Page 9, Para. 2; Page 15, Para. 2-3) or even computer (Page 16, Para. 2-3) as well as

it not being capable of supporting MPEG video distribution (Page 16, Para. 2-3; Page 17, Para. 2)², Perlman teaches that the central electronics device [40] can be a WebTV™ which provides for a subscriber to watch both broadcast and Internet content (Col 8, Lines 13-14). The instant application provides that a "set top box" is any device capable of receiving program information signals (IA: Page 10, Lines 23-25). A WebTV™ clearly meets the definition of a 'set-top box' in light of the specification. As defined in the Microsoft Computer Dictionary 5th edition, a WebTV™ is 'set-top box' that is capable of accessing the Internet (Page 15, Para. 3). As described in the explicitly incorporated Perlman (previously co-pending application 09/154,609 – now US Pat No. 6,530,085 and referred to as Perlman ('085)), a WebTV™ is also a species of computer (Col 1, Line 61 – Col 2, Line 8) that supports Internet communication and numerous video formats including MPEG (Col 15, Lines 52-64; Col 18, Lines 46-64).³ The Cooper et al. reference, of record further supports that a WebTV™ is a 'set-top box' and that a 'set-top box' is essentially a general purpose computer that is 'specialized' through the addition of a television tuner (Col 2, Lines 21-34). The Schindler et al. reference, of record, provides even further evidence to a 'set-top box' being a personal computer [118] that also serves as a 'set top box' (Col 3, Lines 34-67). Accordingly, while significant differences existed between both a 'set-top box' and a 'personal computer' at one point in time in the art, the particular distinction between a 'personal computer' and a 'set-top box' such as a WebTV™ was not significantly different at the time the

² The particular usage of MPEG formatted video is not recited or required by the claims.

³ Responsive to appellant's argument regarding the usage of reference Perlman ('085)(Page 14, Para. 3-4), the particular reference was not utilized in the rejection of claims 35, 47, and 57, as opposed to claims 42, 52, and 64, but is properly utilized as set forth in MPEP 2163.07(b).

invention was made and there does not appear to be any merit to the argument that the central electronics device [40] is not a 'set-top box' which is capable of interconnecting with numerous and diverse types of 'consumer electronic devices'.

Responsive to appellant's arguments regarding the particular types of 'consumer electronic devices' that the Perlman central electronic device [40] can be interconnected with, the reference teaches that 'consumer electronic devices' can be any number or type of various consumer electronic devices that provide audio output, video output, or information services or can be connected to a television set (Col 6, Lines 45-54). Appellants, however, argue that the Perlman 'consumer electronic devices' are limited to being 'large' devices and therefore cannot include 'handheld computing devices' (Page 14, Para. 2). This simply is not supported by the reference in view of the teaching of any number or type. Any number or type clearly does not preclude consumer electronic devices simply by virtue their size. Furthermore, the art is replete with examples that it is well-known to those skilled in the art to interconnect and distribute audio/video information between a 'set-top box' and consumer electronic device such as a 'handheld computing device'. For example, Figure 1 of Wharton et al. (US Pat No. 5,831,664), of record, clearly illustrates that the particular interconnection between a 'set-top box' [16] and a 'television' [14] and a 'hand held computing device' [12] was well established in the art. Given that the WebTV™ device is a 'set-top box', which as previously discussed is essentially a computer, there is simply no factual basis to conclude that the WebTV™ and a 'handheld computing device' could not interoperate.

In keeping with the illustration of Figure 6, Perlman illustrates the particular interconnection of a VCR [130] with the central electronics device [40] or 'set-top box' as previously discussed. Therefore, responsive to appellant's arguments with respect to the particular interconnection of a recording device [130] and a 'set-top box' [40] not traditionally being between one another (Page 8, Para 1), the examiner notes that Figure 6 of Perlman clearly illustrates that the particular interconnection arrangement wherein a 'set-top box' interconnects a VCR [130] with the television [110] was known or was 'traditional' at least as early as the filing of the instant application. The Perlman reference further teaches that all audio/visual information within the system is distributed/routed/transformed (reformatted) through the 'set-top box' [40] for display [110] and that the VCR [130] or central distribution unit can subsequently record and playback any of the received video or audio signals regardless of their source (Col 9, Lines 46-65). Responsive to appellant's arguments (Page 12, Para. 1), there simply is no basis to conclude that the central distribution unit is somehow incapable of sending and receiving audio/video information from a particular type or species of 'consumer electronic device' such as a 'hand held computing device'. The Perlman reference, therefore presents an architecture similar to that of the instant application comprising the particular interconnection of a 'set-top box' with a recording medium wherein any of the stored/recorded signals can be output on the display [110] via the 'set-top box' [40]. However, the Perlman reference is silent with respect to the usage/interconnection of a particular species of consumer electronic device or 'handheld computing device', which as disclosed by appellants as previously discussed, is known in the art to facilitate

recording. Accordingly, the Perlman reference simply does not equate the VCR [130] with being a 'hand held computing device' or explicitly disclose that the other previously disclosed consumer electronic device includes a 'hand held computing device'.

The PocketTV™ article explicitly teaches that with its software, which is further described as being publicly available for download and installation, a 'handheld computing device' such as a Palm-sized PC or other form of PDAs "becomes a miniature VCR". Appellants present a number of arguments with respect to the article being non-enabling or merely 'marketing fluff' (Page 10, Para. 3 – Page 13, Para. 4). As set forth in MPEP 2121, when the reference relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be operable. Once such a reference is found, the burden is on applicant to provide facts rebutting the presumption of operability. In re Sasse, 629 F.2d 675, 207 USPQ 107 (CCPA 1980). An assertion that the reference is 'marketing fluff' is not premised on facts. Applicant's arguments appear to be absent any facts as to why the software does not enable a 'handheld computing device' to become a VCR. If the product was not adequately developed, then why would it have been made freely available for use. The product was even named WindowsCE Program of the Year in the Third Annual ZDNet PDA Software Awards ("PocketTV – MPEG movie player for Pocket PC and WinCE"). It doesn't seem a stretch to assume that it must have worked to be named product of the year. The PocketTV™ article clearly describes the existence of a real operable product (not to mention downloadable demonstration clips of the product in use) that is available for download wherein the particular installation of the software allows/enables

a user to facilitate enhanced features including recording (as concurred by appellant – Page 13, Para. 1) and playback of MPEG video (as concurred by appellant – Page 14, Para. 1). A removable memory module such as that supported by the 'HP Jordana 430se' could be construed as being analogous to a cassette tape (User Guide – Chapter 2 – Page 9, Item 15) which is not large and bulky. The particular installation of software to provide enhanced functionality including that associated with recording is also well within the ordinary skill in the art (IA: Page 2, Line 31 – Page 3, Line 2) and the article references download and installation instructions. As illustrated in the additional articles of record describing the product ("PocketTV – MPEG movie player for Pocket PC and WinCE" and "Download PocketTV (beta) for WinCE"), the product clearly enables storing/recording distributed MPEG video and performing a number of playback operations that one would expect to find with a VCR. Subsequently, there does not appear to be any sensible basis to doubt the assertion that the software enables a 'handheld computing device' to become a miniature VCR which allows for the recording/playback of video files.

With respect to applicant's arguments that the PocketTV™ article does not disclose the particular interconnection and transfer of audio/video from between the 'handheld computing device' with a 'set-top box' (Page 13, Para. 3), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As previously discussed, the Perlman reference provides the interconnection of any

'consumer electronic device' with a 'set-top box' [40] or WebTV™ type device. Perlman discloses that using the hub and spoke configuration illustrated in Figure 6 that all signals are received and routed to/from the 'set-top box' [40] and the 'consumer electronic devices' and these signals may be subsequently presented on the display [110] (Col 9, Lines 13-37). The PocketTV™ article discloses a 'hand held computing device" or 'miniature VCR' which receives video signals and subsequently enables their playback. Why wouldn't the 'hand held computing device" when interconnected with the 'set-top box' allow for the presentation of video on the display [110] similar to the other 'consumer electronic devices'? Is a 'miniature VCR' somehow different from a large VCR? There simply isn't evidence of record to support the contrary. While appellants argue that the 'handheld computing device' is neither a personal computer nor a VCR (Page 18, Para. 1), the application as originally filled states that 'hand held computing devices' are known as Palm PCs (IA: Page 3, Lines 22-25). Based on its common usage a 'Palm PC' is merely species of personal computer that fits in one's pocket. As previously discussed, there is no basis to conclude from Perlman that the size of a 'consumer electronic device' such as an exemplary consumer electronic device such as a personal computer or VCR somehow would render it inoperable for interconnection. Accordingly, taken in combination, the references provide for a 'hand held computing device' or PDA to be interconnected with a 'set-top box' wherein received video (such as that from the Internet or other MPEG source) is received/processed by the "set-top box" [40] and transmitted to/from the "hand held computing device" analogous to the disclosed VCR [130] or any other consumer electronic device of Perlman. The

particular interconnection with the PocketTV™ 'hand held computing device' subsequently provides the user with the further ability to portably take the recorded programming with them as described in the article or to playback the video onto the large display analogous to the other devices within the system.

Appellants also argue that the combination of the PocketTV™ article/device with the Perlman 'set top box' would not be possible because the PocketTV™ teaches away from being used with any system other than a personal computer (Page 19, Para. 2) as opposed to a 'set-top box'. The examiner respectfully disagrees. The PocketTV™ reference discloses its particular usage with a particular make/model of 'hand held computing device' namely the 'HP Jornada 430se'. The examiner recognizes that a prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, "the nature of the teaching is highly relevant and must be weighed in substance". As previously discussed and supported by the art of record (ex. Cooper et al.), a WebTV™ is a 'set-top box' that is essentially a general purpose computer with a tuner. The very essence of the Perlman reference is to support the interconnection any number or type of various consumer electronic devices that provide audio output, video output or information services or can be connected to a television set. One would be hard pressed to conclude that a PalmPC such as the 'HP Jornada 430se' is not a type of consumer electronic device as defined by Perlman or why a palm-sized personal computer or 'miniature VCR' described in the PocketTV™ article could not be interconnected. Perlman clearly does not differentiate the size of the devices that it is capable of interconnecting.

Furthermore, the particular interconnection of a PDA with a 'set-top box' is well within the ordinary skill in the art at least 4 years prior to the filing of the instant application (ex. Wharton et al.). Subsequently, there simply is no evidence or basis to support the conclusion that a PDA such as that disclosed in the PocketTV™ article could or should not be interconnected with a WebTV™ that is in essence a general computer with a tuner and further enables the retrieval of information from the Internet such as that described in the PocketTV™ article.

Regarding appellant's arguments that there is no suggestion to combine the references since the PocketTV™ device is limited to playback only on the device itself (Page 14, Para. 1-3; Page 16, Para. 3; Page 18, Para. 1), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, a modification to Perlman to utilize the PocketTV™ 'hand held computing device' clearly provides an advantage in so far as it allows a user to retrieve record media and to subsequently portably take it with them as described in the PocketTV™ reference. As previously discussed, this is the same reasoning behind the instant application. The particular usage of the Perlman with a 'hand held computing device' of the PocketTV™ article also advantageously allows for a user to watch recorded media from a 'hand held portable device' comprising a small screen using an

interconnected large display for joint consumption. Appellant's arguments would appear to concur that this is desirable. Additionally, it is generally known to those skilled in the art that the transferring the viewing of information from a small screen display device to a larger screen is desirable as evidenced by the Minett (EP 0 710 017 A2) reference (Col 2, Lines 37-51) and the Croy et al. (US Pat No. 6,476,825) (Col 9, Lines 27-31) of record. Contrary to appellant's arguments that the 'hand held computing device' is not capable of supporting the display of information onto a large screen, the 'HP Jornada 430se' clearly supports the capability to transfer and display information stored on it for display on a large screen as opposed to being restricted to only being capable of displaying information on its own display (User Guide – Chapter 6 – Browsing the HP Jornada desktop (Page 52)). Furthermore, the particular transmission/distribution is not limited to only a single device (User Guide – Chapter 6 – Connecting to another PC (Page 49), but rather can include the distribution to multiple computers. Simply put, the PocketTV™ 'hand held computing device' cannot possibly teach away from its inherent capability of being able to transfer stored content to multiple devices and to display the stored content either on its own small display or the large screen display of the corresponding device. Accordingly, the examiner respectfully disagrees that there is a lack of motivation to combine the references given that a motivation to do so is found in the references themselves and in the knowledge generally available to one of ordinary skill in the art.

The PocketTV™ reference in combination with the Perlman reference is silent regarding the further usage of the 'handheld computing device' as a form of remote

controller. Responsive to appellants arguments (Page 19, Para. 3), the Huang reference is provided to teach and provide motivation for facilitating EPG and for controlling a number of devices using a 'handheld computing device'. The particular limitations that the examiner concludes are taught by the reference and the motivation to combine the reference with the other references is not addressed in the Appeal Brief. Accordingly, the examiner concludes that the particular usage and teachings of the Huang reference are not at issue for Appeal.

In summary, the Perlman reference clearly discloses the particular usage of a 'set-top box' that is capable of being interconnected to any number and type consumer electronic devices including recording devices. It is well known in the art to interconnect a set-top box with a 'handheld computing device' as evidenced by Wharton. Perlman is silent with respect to the particular usage of a 'hand held computing device'. The PocketTV™ article describes a real product that turns a 'hand held computing device' into a 'miniature VCR' that is capable of recording and playing back video similar to a traditional VCR and advantageously provides the subscriber with a portable device for the playback of recorded media. The Perlman reference discloses that all of the audio/video is routed through the 'set-top box' for display and that its VCR supports the recording and playback of material through the display. The 'HP Jordana 430se' inherently supports not only the capability to locally display stored content but to also to transfer and display its contents on a larger display. The particular display of information on a larger screen such as that associated with a television versus a smaller screen such as that associated with a 'hand held computing device' is generally known

in the art to be desirable. Accordingly, it is believed that a prima facie case of obviousness was established and the rejection of claims 35, 47, and 57 is proper.

2. Dependent claims 36, 37, 58, and 59 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In particular, it is the examiner's position that the particular display of media using either the "same" or a "different STB" from which the content was originally received was clearly only knowledge that was within the level of ordinary skill at the time the claimed invention was made. Responsive to appellant's arguments, the ability to share and distribute media between users with a similar configuration is clearly known in the art per appellant's own admission (IA: Page 2, Lines 3-12). The PocketTV™ article clearly discloses the usage of a 'handheld computing device' in which the user can take recorded media along with them. Furthermore, the 'HP Jordan 430se' further inherently supports the capability for a single 'hand held computing device' to share data between itself and multiple computers (User Guide – Chapter 6 – Connecting to

another PC (Page 49), thereby anticipating the particular usage scenario. Clearly the combination supports the ability to record media at one location and to play it back at the same or another location. Accordingly, the rejection is not considered to involve impermissible hindsight.

3. Dependent claims 38, 49, and 60 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

As noted in appellant's arguments, the depression of a play button on a VCR would cause a VCR to play a tape and the output of the VCR would transmit via cable to a television. In light of the architecture relied upon in Perlman, it would subsequently follow that the depression of a 'single button' would cause the 'transmission' and subsequent 'playback' of the recorded media on the corresponding 'output device' [110]. The difference therefore merely lies in the claim requires that the 'hand held computing device' is what performs the corresponding action. As previously discussed, the PocketTV™ software enables a 'handheld computing device' to become a 'miniature VCR'. Taken in combination, the depression of a single button (ex. Play) is not considered unreasonable in view of what is traditionally associated with VCR type devices as causing information to be transmitted and displayed. For example, if one was browsing the contents of the 'HP Jordana 430se' from their television and subsequently hit the play button associated with the PocketTV™ software, would it follow that viewing of the contents on the large display as previously discussed would

include the video being subsequently played back. Accordingly, the claims are not believed to be patentable.

4. Dependent claims 39 and 61 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

In response to applicant's argument that there is no suggestion to modify the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the particular usage of encryption for recorded media in order to limit its distribution is notoriously well known in the art. For example, as described in the application, illegal and unauthorized copying of information is a common problem and encryption is utilized to prevent unauthorized copying (IA: Page 1, Line 29 – Page 2, Line 2). The PocketTV™ article makes reference to the particular usage of MPEG. The MPEG standard is an open, non-proprietary, and non-encrypted format. However, the particular usage of MPEG encryption is notoriously well known in the art and the PocketTV™ article provides no teaching so as to dissuade one from employing a well-known technique to prevent unauthorized copying of information. For example, the Park (US Pat No. 5,761,302) reference of record provides evidence as to the particular usage of MPEG encryption in

association with a recording device in order to limit distribution of the recorded media (Col 1, Lines 5-10; Col 2, Lines 40-45). Accordingly, the particular usage and motivation to employ “encryption” in association with a recorded medium to prevent unauthorized distribution is knowledge generally available to one of ordinary skill.

5. Dependent claims 40, 50, and 62 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

With respect to appellant's arguments regarding claims 40, 50, and 62, appellant's remark that that the Huang reference provides for wireless communications as a remote controller. In response to appellant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., transmission of information more than remote control codes – e.g. the claimed audio/visual information) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claim only requires that the 'hand held computing device communicates with one or more of the STBs via a wireless connection'. Therefore, the particular communication of remote control codes wirelessly reads on the claimed limitations. It is further noted that the 'HP Jordana 430se' referenced in the PocketTV™ article also supports both wired and wireless communications (User Guide – Chapter 6 – Connecting by travel cable (Page 46)).

6. Dependent claims 41, 51, and 63 are not separately argued.

7. Dependent claims 42, 52, and 64 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

With respect to appellant's arguments regarding the particular incorporation of a VCR into a STB not being disclosed by the Perlman ('085) reference, the examiner respectfully disagrees. As is commonly understood in the art a 'VCR' is a device for the recording and playing back media. The cited passage of Perlman ('085) clearly discloses that the 'set-top box' can comprise a digital video tape for the recording and playback of video. Accordingly, the particular storage device [290] is considered as meeting the claimed limitation of a VCR. Furthermore, examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). An alternative embodiment using an external VCR cannot be construed as teaching away from the earlier disclosure. Accordingly, the claims are not considered patentable.

Further in KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. This is much the case with this invention. All elements of Perlman, the PocketTV™ article, and Huang are known. These well known methods, of using a handheld device, using a handheld device as a control remote, and a network comprising a plurality of STB could be combined to yield predictable results. Moreover,

all the features of a VCR, such as recording and playing back media similarly are met by a 'set-top-box' capable of recording and playing back media.

8. Dependent claims 43, 53, and 65 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

With respect to appellant's arguments regarding the particular usage of 'filtering' in conjunction with the combined references, the examiner respectfully disagrees that the limitation would not have been obvious or is wholly without merit. The limitation with respect to filtering is broad. The PocketTV™ device clearly comprises a limited amount of memory. No known compression in the art can allow the device to physically store every video stream in the known universe on a 64 MB card. Given the limited amount of memory, why would the system record video that is not desired by the user? Given the plurality of broadcast streams available to it, why wouldn't the system serve to filter or to only record those requested/desired? Similarly, why would the system transmit information to the recording device that it can't possibly store due to a lack of storage space? The Perlman 'set-top box' receives both broadcast and information from the Internet. It 'filters' the received information in order to process the Internet packets addressed to it or to tune to or select the particular channel of interest for subsequent distribution to the recording device (Col 9, Lines 58-61; Col 10, Lines 50-67). It certainly would be counter-intuitive to waste bandwidth as well as the limited storage to filter out desirable content (ex. a program that the user wanted to record). Accordingly, the

rejection is considered proper in light of knowledge generally available to those skilled in the art.

In addition, Examiner points out that Huang teaches on (column 5 lines 31-37) filtering by subject allows an individual to sort through multiple channel listings to get to the programs which the user would like to see. This clearly shows a system capable of filtering out desirable information from audio/visual information. Furthermore, KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. Therefore, combining a filtering system with a STB (as disclosed by Perlman) and using the filtered information for transmission and storage on the handheld device (as disclosed by the Pocket TV™ article) are well known features that can be combined to yield predictable results.

9. Dependent claims 44, 54, and 66 are not separately argued.

10. Dependent claims 45, 55, and 67 are not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

Regarding claims 45, 55, and 67, the claims broadly require that information is transmitted between devices when an amount of information exceeds a threshold. The claims require absolutely nothing with respect to the size of the 'threshold'. If there isn't any information to transmit (ex. 0 MB), then why or what would it transmit. Rather, video information is clearly only transmitted for playback when there is something to

transmit (ex. greater than 0 MB). With respect to the alternative read, the 'HP Jordana 430se' can only support wireless streaming once the transmission rate reaches 100 Mbit/sec. Therefore, once or only when the 'amount of information' exceeds the threshold or necessary wireless bandwidth of 100 Mbit/sec can the system transmit/distribute information wirelessly. Accordingly, the rejection in light of the combined teachings is believed to be proper.

11. Dependent claims 46, 56, and 68 are not separately argued.

12. Dependent claim 48 is not considered patentable over Perlman, in view of the PocketTV™ article, and further in view of Huang.

Regarding claim 48, as previously discussed, the particular combination of Perlman, in view of the PocketTV™ article, and in further view of Huang sets forth an architecture similar to that illustrated in Figure 1 of the application. As noted in appellant's arguments, the particular scenario using different handheld devices is not shown and need not be illustrated because it is a 'conventional feature'. Appellants further provide a definition of what is meant by 'conventional' which further equates 'conventional' as not only 'confirming to established practice' but also being 'unimaginative'. Appellants subsequently argue that being 'conventional' should rise to the level of being non-obvious (Page 25, Para. 3). If conventional is to be construed per appellant's own definition as being 'unimaginative' then it follows that a particular modification to the illustrated architecture of Figure 1 of the application to utilize different

handheld computing devices would similarly be an 'unimaginative' leap. Therefore, why would the particular modification to the combined references which present the same architecture as that of the application be considered non-obvious to one skilled in the art in light of appellant's clear statement that it is an 'unimaginative' modification to what is illustrated in Figure 1.

Further in KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. All elements of Perlman, the PocketTVTM article, and Huang are known. Huang teaches on (column 5 lines 64-67) that a serial port (116) provides a data connection between the invention (101) and the personal digital assistant or other portable device (118). This shows that a PDA or other portable devices are capable of controlling a STB. These well known methods, of using handheld devices as a control remote, and a network comprising a plurality of STB could be combined to yield predictable results.

Appellant's further arguments regarding the particular usage of transfer of information between identical configurations and devices as involving impermissible hindsight and further lacking a reasonable chance of success, the examiner respectfully disagrees. The particular 'sharing' of media among compatible devices between locations is notoriously well known. For example, the instant application discloses that the particular ability to record media at one location using a VCR and then go to another location to play the media back using a compatible VCR is well known (IA: Page 2, Lines 3-12). As previously discussed, the PocketTVTM software enables a 'hand held

computing device' to become a miniature VCR. Once a prima facie case of obviousness is established, the burden shifts to the applicant to come forward with arguments and/or evidence to rebut the prima facie case. See, e.g., *Dillon*, 919 F.2d at 692, 16 USPQ2d at 1901. Appellant's provide no factual or basis by which to conclude that one would not have a reasonable chance of success in association with the swapping of identical recording devices between identical configurations. The 'HP Jordan 430se' further inherently supports the capability for a computing device to receive/transfer information between itself and multiple PalmPCs or alternatively to share recorded content between a single 'hand held computing device' and multiple computers (User Guide – Chapter 6 – Connecting to another PC (Page 49), thereby anticipating the claimed usage scenario. It is not believed that those skilled in the art to recording a movie at home and subsequently watch it at a friend's house is not novel in the art. Accordingly, the particular usage of different hand held computing devices in association with the reception and transfer of information between different 'hand held computing devices' and a particular 'set-top box' should not be considered patentable over the combined teachings.

B. Claims 35-68 are Patentable Under 35 U.S.C. 103(a) Over Schindler, PocketTV™, and Huang.

1. Independent claims 35, 47, and 57 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Responsive to appellant's previously presented arguments regarding the particular interpretation that the PocketTV™ article was limited to the distribution of information to a 'personal computer', the examiner set forth an independent grounds of rejection substituting the Perlman reference with Schindler. The Schindler et al. reference is clearly directed towards a 'personal computer' [118] that is also a 'set top box' (Col 3, Lines 34-67) in accordance with appellant's definition of the term being any device capable of receiving program information signals (IA: Page 10, Lines 23-25). The definition provided in the instant application clearly isn't exclusive such that a 'computer' can't also be construed as a 'set-top box'. The system further processes MPEG-1 formatted signals (Col 10, Lines 15-19)(the same type required in the PocketTV™ article) and allows for the received broadcast signals to be recorded (Col 21, Lines 4-25) and played back on the display [122]. The Schindler reference similarly enables interconnection with a plurality of devices (Figure 1), but is silent with respect to the particular interconnection of a 'handheld computing device'. As repeatedly stated by appellant, the PocketTV™ is limited to transferring information to a 'computer'. The Schindler et al. reference is clearly a 'computer' that is also a 'set-top box'. Accordingly, taken in combination with Schindler, the PocketTV™ device facilitates the transfer of information to/from a 'set top box' contrary to appellant's arguments (Page 28, Para. 1).

Regarding appellant's arguments that there is no suggestion to combine the references since the PocketTV™ device is limited to playback only on the device itself (Page 14 Para. 1-3; Page 16, Para. 3; Page 18, Para. 1), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As previously discussed, the modification to Schindler to utilize the PocketTV™ 'hand held computing device' provides an advantage in so far as it allows for the portable storage and playback of recorded media as found in the PocketTV™ reference itself. The particular playback 'portability' is not disclosed or provided by the illustrated interconnected devices of Schindler. Even appellant's own arguments with respect to Perlman would appear to concede that there is a teaching or suggestion to utilize a computer form with the PocketTV™ system (ex. Page 15, Para. 1). Furthermore, the particular usage of the Schindler system with a 'hand held computing device' of the PocketTV™ article advantageously allows for a user to watch recorded media from a 'hand held portable device' which comprises a small screen onto an interconnected large display for joint consumption. Contrary to appellant's arguments (Page 26, Para. 2 and 4 – Page 27, Para. 3; Page 29, Para. 2 and 3), the particular motivation to display of information from a smaller screen to a larger screen is generally available to one of ordinary skill in the art as evidenced by the Minett (EP 0 710 017 A2)

reference (Col 2, Lines 37-51) and the Croy et al. (US Pat No. 6,476,825) reference (Col 9, Lines 27-31) of record. The 'HP Jordana 430se' also support the capability to transfer and display information stored on it on a large screen display (User Guide – Chapter 6 – Browsing the HP Jornada desktop (Page 52)) as opposed to being restricted to only being capable of displaying information on its own display as argued by appellant's (Page 28, Para. 2; Page 29, Para. 3). Furthermore, the particular transmission/distribution is not limited to only a single device (User Guide – Chapter 6 – Connecting to another PC (Page 49)), but rather can include the distribution to multiple computers. Simply put, it is unclear as to how taken as a whole, the PocketTV™ 'hand held computing device', a very device described by appellant is to be used with a computer, could not be considered to be properly combinable with a computer and furthermore teach away from its inherent capability of being able to transfer stored content to multiple devices and to display the stored content either on its own small display or the large screen display of the corresponding device.

2. Dependent claims 36, 37, 58, and 59 are not considered patentable over Schnidler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A2. Accordingly, the particular rejection is similarly not considered to involve impermissible hindsight.

3. Dependent claims 38, 49, and 60 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A3. Accordingly, the particular rejection is similarly not considered to involve impermissible hindsight and conjecture.

4. Dependent claims 39 and 61 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A4. Accordingly, the particular rejection is believed proper in that it is premised on knowledge generally available to those skilled in the art and the combination of references does not 'teach away' from the claimed usage of encryption.

5. Dependent claims 40, 50, and 62 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A5. Accordingly, the particular rejection is similarly considered proper.

6. Dependent claims 41, 51, and 63 are not separately argued.

7. Dependent claims 43, 53, and 65 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A8. Accordingly, the particular rejection is similarly considered proper in light of the Schindler 'set-top box' similarly operating to 'filter' out received information to only that requested.

8. Dependent claims 44, 54, and 66 are not separately argued.

9. Dependent claims 45, 55, and 67 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Appellants provide no further arguments over and above those already presented in association with argument A10. Accordingly, the particular rejection is believed to have established a proper prima facie case of nonobviousness.

10. Dependent claims 46, 56, and 68 are not separately argued.

11. Dependent claim 48 is not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

Regarding claim 48, as previously discussed, the particular combination of Schindler, in view of the PocketTV™ article, and in further view of Huang sets forth an

architecture similar to that illustrated in Figure 1 of the application. Appellants do not particularly address the first part of the rejection as opposed to the alternative basis of the rejection. Assuming that similar arguments to that used in associated with the other combination of references similarly apply, as previously discussed the particular scenario using different handheld devices was not shown and was need not be illustrated because appellants noted that it is a 'conventional feature'. Appellant's definition 'conventional' sets forth that it is defined as 'confirming to established practice' or 'unimaginative'. If 'conventional' is to be construed per appellant's own definition as being 'unimaginative' then it follows that a particular modification to the illustrated architecture of Figure 1 of the application to utilize different handheld computing devices would similarly be an 'unimaginative' leap. Therefore, why would the particular modification to the combined references that present the same architecture as that of the application be considered as non-obvious to one skilled in the art in view of appellant's clear statement that it is an 'unimaginative' modification to what is illustrated.

Further in KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. All elements of Perlman, the PocketTVTM article, and Huang are known. Huang teaches on (column 5 lines 64-67) that a serial port (116) provides a data connection between the invention (101) and the personal digital assistant or other portable device (118). This shows that a PDA or other portable devices are capable of controlling a home entertainment system. These well known methods, of using

handheld devices as a control remote, and a home entertainment system could be combined to yield predictable results.

Appellant's further arguments regarding the particular usage of transfer of information between identical configurations and the examiner's illustrative scenario involves impermissible hindsight and has no basis in the art, the examiner respectfully disagrees. The particular 'sharing' of media among compatible devices between locations is notoriously well known. For example, the instant application discloses that the particular ability to record media at one location using a VCR and then go to another location to play the media back using a compatible VCR is well known (IA: Page 2, Lines 3-12). As previously discussed, the PocketTV™ software enables a 'hand held computing device' to become a miniature VCR. The 'HP Jordan 430se' further inherently supports the capability for a computing device to receive/transfer information between itself and multiple PalmPCs or alternatively to share recorded content between a single 'hand held computing device' and multiple computers (User Guide – Chapter 6 – Connecting to another PC (Page 49), thereby anticipating the claimed usage scenario. Is it truly novel to those skilled in the art to record a movie at home and subsequently not watch it at a friend's house? Accordingly, the particular usage of different hand held computing devices in association with the reception and transfer of information between different 'hand held computing devices' and a particular 'set-top box' should not be considered to be patentably distinct over the combined teachings.

12. Dependent claims 42, 52, and 64 are not considered patentable over Schindler, in view of the PocketTV™ article, and further in view of Huang.

With respect to appellant's arguments regarding the particular incorporation of a VCR into a STB not being disclosed by Schindler reference, the examiner respectfully disagrees. As is commonly understood in the art a 'VCR' is a device for the recording and playing back media. The cited passage of Schindler clearly discloses that the 'set-top box' can comprise a tape for the recording and playback of video. Accordingly, the particular storage device [330] is considered as meeting the claimed limitation of a VCR. Furthermore, examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. In re Susi, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). An alternative embodiment using an external VCR cannot be construed as teaching away from the earlier disclosure. Accordingly, the claims are not considered patentable.

Further in KSR vs. Teleflex the Supreme Court ruled that combining well known parts by known methods that produce expected results is the basis for rejections under Section 103. This is much the case with this invention. All elements of Perlman, the PocketTV™ article, and Huang are known. These well known methods, of using a handheld device, using a handheld device as a control remote, and a network comprising a plurality of STB could be combined to yield predictable results. Moreover, all the features of a VCR, such as recording and playing back media similarly are met by a 'set-top-box' capable of recording and playing back media.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Franklin Andramuno

/F.A./

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